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**Guidelines for Design of User Based Navigation in a Virtual Environment and Eye-Tracking Study
within a Virtual Environment—Data Items #0023 & 0024**

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The FakeSpace Immersive Workbench (IWB) funded by NAVCIITI monies was successfully installed on 28 - 29 June, and about eight people had training in its use. The "Dragon" real-time battlefield visualization software developed at NRL now runs on our IWB. This software is the basis for the long-term collaboration between Dr. Deborah Hix at Virginia Tech and Dr. Larry Rosenblum and Dr. Ed Swan in the VR Lab at NRL. Dr. Helen Gigley of ONR funds this collaboration. Mr. Eric Nash, the GRA funded on this project, spent several days with Dr. Swan at NRL, finalizing details for an empirical study of navigation in virtual environments.

Once all issues associated with getting the new IWB up and fully running, we will be able to begin working with it and the CAVE to continue our work in eye tracking and other visualization techniques for VEs.

Because of extremely difficult programming needed to get the Dragon software ready for the experimental study, running on three complex platforms (CAVE, Workbench, desktop), the study has been delayed somewhat. We expect to collect data in early fall and have initial analysis of it done by the end of CY99. Research for the eye-tracking data collection synopsis is being concluded by summer's end, and a report will be finalized by mid-fall 1999.